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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,660	10/06/2003	Bradley J. Eldred	MICROPURE-01	4115

7590 08/16/2006  
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EXAMINER

CHORBAJI, MONZER R

ART UNIT PAPER NUMBER

1744

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/679,660

Applicant(s)

ELDRED, BRADLEY J.

Examiner

MONZER R. CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 67-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

**This non-final action is in response to the amendment received on 05/26/2006**

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 67 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomioka et al (U.S.P.N. 5,510,109) in view of Yahya et al (U.S.P.N. 5,217,626) and further in view of Choi (Bulletin of the Korean Fisheries Society) and Kobayashi et al (U.S.P.N. 4,909,986).

Regarding claims 67 and 70, Tomioka teaches a disinfecting composition that includes the following: a fluid (col.2, lines 48-67, col.3, lines 1-17 where the fluid is the solution that contains the disinfecting composition within), copper metal (col.4, lines 4-10) is dissolved in the fluid, silver metal (col.4, lines 4-10) is dissolved in the fluid, alcohol (col.5, lines 59-62) is dissolved in the fluid and plant extract (col.3, lines 52-55)

is dissolved in the fluid as well. Each of the components is present within a concentration range. Tomioka fails to teach the following: concentration ranges for the metal ions, the use and the concentration range values of grapefruit seed extract and the use and the concentration range values for glycerin. Yahya teaches that copper concentration is about 0.05 mg/L (col.4, lines 1-4) and silver concentration is about 0.005 mg/L (col.4, lines 4-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tomioka copper and silver ions concentration values as taught by Yahya since copper and silver ions at such concentration values exhibit improved levels of inactivation of bacteria, viruses, fungi and parasites in water systems (Yahya, col.3, lines 15-19).

Yahya fails to teach the use and the concentration range values of grapefruit seed extract and also the use and the concentration ranges for glycerin. Choi teaches that grapefruit seed extract at a concentration range of 50 ppm (ppm= mg/L) completely inhibits growth of various pathogenic microorganisms (lines 6-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one or more of the plant extracts of Tomioka with grapefruit seed extract as taught by Choi for its strong antimicrobial activity (Choi, lines 1-5) and to add it at a concentration of 50 mg/L as taught by Choi since at such a concentration value the growth of many harmful microorganisms is inhibited (Choi, lines 5-9).

Choi fails to teach the use and the concentration ranges for glycerin. Kobayashi teaches including a preservative or antiseptic compound such as glycerol (col.9, lines 57-62) into the deodorizing composition at legally accepted levels. Furthermore,

Kobayashi teaches (example 12, columns 12-16) adding to the deodorant solution glycerol (glycerin and glycerol are synonyms) at a concentration value of 200 ppm. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tomioka composition by adding glycerol as taught by Kobayashi since at such a concentration value, glycerin acts as an antiseptic agent that leads to the additional destruction of microorganisms in combination with metal ions and grapefruit seed extract components.

4. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomioka et al (U.S.P.N. 5,510,109) in view of Yahya et al (U.S.P.N. 5,217,626) and further in view of Choi (Bulletin of the Korean Fisheries Society).

Tomioka teaches a disinfecting composition that includes the following: a fluid (col.2, lines 48-67, col.3, lines 1-17 where the fluid is the solution that contains the disinfecting composition within), copper metal (col.4, lines 4-10) is dissolved in the fluid, silver metal (col.4, lines 4-10) is dissolved in the fluid, alcohol (col.5, lines 59-62) is dissolve in the fluid and plant extract (col.3, lines 52-55) is dissolved in the fluid as well. Each of the components is present within a concentration range. Tomioka fails to teach concentration ranges for the metal ions as recited in claim 68 and the use and the concentration range values of grapefruit see extract. Yahya teaches that copper concentration is about 0.05 mg/L (col.4, lines 1-4) and silver concentration is about 0.005 mg/L (col.4, lines 4-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tomioka copper and silver ions concentration values as taught by Yahya since copper and silver ions at such

concentration values exhibit improved levels of inactivation of bacteria, viruses, fungi and parasites in water systems (Yahya, col.3, lines 15-19).

Yahya fails to teach the use and the concentration range values of grapefruit seed extract. Choi teaches that grapefruit seed extract at a concentration range of 50 ppm (ppm= mg/L) completely inhibits growth of various pathogenic microorganisms (lines 6-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one or more of the plant extracts of Tomioka with grapefruit seed extract as taught by Choi for its strong antimicrobial activity (Choi, lines 1-5) and to add it at a concentration of 50 mg/L as taught by Choi since at such a concentration value the growth of many harmful microorganisms is inhibited (Choi, lines 5-9).

5. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomioka et al (U.S.P.N. 5,510,109) in view of Yahya et al (U.S.P.N. 5,217,626) and further in view of Kobayashi et al (U.S.P.N. 4,909,986).

Tomioka teaches a disinfecting composition that includes the following: a fluid (col.2, lines 48-67, col.3, lines 1-17 where the fluid is the solution that contains the disinfecting composition within), copper metal (col.4, lines 4-10) is dissolved in the fluid, silver metal (col.4, lines 4-10) is dissolved in the fluid, alcohol (col.5, lines 59-62) is dissolve in the fluid and plant extract (col.3, lines 52-55) is dissolved in the fluid as well. Each of the components is present within a concentration range. Tomioka fails to teach concentration ranges for the metal ions as recited in claim 69 and the use and the concentration range values for glycerin.. Yahya teaches that copper concentration is

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about 0.05 mg/L (col.4, lines 1-4) and silver concentration is about 0.005 mg/L (col.4, lines 4-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tomioka copper and silver ions concentration values as taught by Yahya since copper and silver ions at such concentration values exhibit improved levels of inactivation of bacteria, viruses, fungi and parasites in water systems (Yahya, col.3, lines 15-19).

Yahya fails to teach the use and the concentration ranges for glycerin. Kobayashi teaches including a preservative or antiseptic compound such as glycerol (col.9, lines 57-62) into the deodorizing composition at legally accepted levels. Furthermore, Kobayashi teaches (example 12, columns 12-16) adding to the deodorant solution glycerol (glycerin and glycerol are synonyms) at a concentration value of 200 ppm. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Tomioka composition by adding glycerol as taught by Kobayashi since at such a concentration value, glycerin acts as an antiseptic agent that leads to the additional destruction of microorganisms in combination with metal ions and grapefruit seed extract components.

### ***Remarks***

6. The rejection in the action dated 02/27/2006 has been withdrawn.

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 67-70 have been considered but are moot in view of the new ground(s) of rejection.


### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 9:00-5:30.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLADYS J. CORCORAN can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRC 

  
GLADYS JP CORCORAN  
SUPERVISORY PATENT EXAMINER